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10/554,213	06/20/2006	Carmen Martin Rivera	57906US004	4511

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EXAMINER	
COLE, ELIZABETH M	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/554,213
Filing Date: June 20, 2006
Appellant(s): MARTIN RIVERA ET AL.

Trisha D. Adamson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/30/2010 appealing from the Office action mailed 3/2/2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application: 21-34.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN REJECTIONS." New grounds of rejection (if any) are provided under the subheading "NEW GROUNDS OF REJECTION."

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

WO01/28741	Beardsley et al	4-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 21-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/28741.

WO '741 discloses an abrasive article comprising a very low density nonwoven web, (page 7, lines 1-8), which can be formed by air laying, (page 6, line 18) and which is bonded at the crossover points of the fibers, (page 6, lines 17-20). A make coat resin

is applied to the nonwoven and then abrasive particles are applied to the coated nonwoven, (page 8, lines 24-32). Suitable sizes for the abrasive particles are 60 microns or less. See page 2, lines 30-32. The web may be made of natural fibers. See page 5, lines 12-13. The natural fibers can be jute, cotton or hemp fibers. See page 5, lines 12-13. Since WO '741 clearly teaches that the nonwoven web can be made of natural fibers, it is reasonable to expect that the majority or more than 50% of the fibers would be natural fibers, since WO '741 teaches webs made of natural fibers, polymeric fibers or mixtures thereof. Thus, WO '741 teaches three embodiments wherein one would be a web made of natural fibers which would meet the claimed amount of at least 50% natural fibers. The resin for the make coat resin can be thermoset or thermoplastic and may comprise a phenolic resin. Useful abrasive particles include inorganic materials such as aluminum oxide having a diameter of 30-60 microns, polymeric materials such as thermosetting or thermoplastics materials and natural particles such as nut shells. See page 12, line 26 – page 13, line 8. Suitable thicknesses for the abrasive web can be 1-50 mm. See page 8, lines 1-3.

While WO '741 differs from the claimed invention because it does not disclose the density of the nonwoven in terms of kilograms per cubic meter, WO '741 does clearly disclose that the nonwoven should have a very low density with a high void volume of about 75% to about 95%. See page 7, lines 1-9. The void volume and the density are inversely related, in that a material having a high density would have a low void volume and a material having a low density would have a high void volume. WO '741 teaches employing a high void volume in order to produce a material which has a

high abrasive rate and which has a decreased tendency to clog up which reduces the abrasive rate and hinders cleaning of the web by flushing. WO '741 teaches a very high void volume and thus a very low density. The instant claims recite a maximum density of 50%. The instant claims thus encompass very low density values.

Therefore, it would have been obvious to one of ordinary skill in the art at the time at the time the invention was made to have selected the desired void volume and thus the desired density through the process of routine experimentation in order to arrive at a material having sufficient strength and a decreased tendency to clog up which reduces the abrasive rate and hinders cleaning of the web by flushing.

(10) Response to Argument

Appellant argues that WO '741 does not give any guidance or specifics as to the amount and quantity of natural fibers that may be used. However, WO '741 clearly teaches that the nonwoven web can be made of natural fibers, and therefore it is reasonable to expect that the majority or more than 50% of the fibers would be natural fibers, since WO '741 teaches webs made of natural fibers, polymeric fibers or mixtures thereof. WO '741 teaches three embodiments: a web made of natural fibers, a web made of polymeric fibers and a web made of a mixture of fibers. At least the web made of natural fibers would meet the claimed amount of at least 50% natural fibers. Appellant argues that natural fibers are only mentioned in passing and natural fibers are not preferred or exemplified. However, it is not required that the teaching of natural fibers be preferred or exemplified. WO '741 clearly teaches three different

embodiments. It teaches a web made of synthetic fibers, a web made of natural fibers and a web made of a mixture of natural and synthetic fibers. The web made of natural fibers would necessarily have at least 50% natural fibers.

Appellant argues that there is nothing in WO '741 to teach a person of ordinary skill in the art who is attempting to reduce the environmental impact of discarding synthetic scouring material to develop an open, lofty three-dimensional scouring material that has a large amount of natural fibers that is capable of degrading in an environmentally acceptable manner. However, it is noted, that there are no limitations in the claims regarding the degradation of the scouring material in an environmentally acceptable manner or regarding the degradation of the scouring material at all. Therefore, these arguments are not commensurate in scope with the claims. Further, WO '741 teaches employing the same natural fibers, the same particles and the same resins and thus would be expected to degrade in the same ways as the claimed materials.

Appellant argues that WO '741 does not teach the claimed lofty and open structure. However, WO '741 clearly teaches forming an open structure having a very low density with a high void volume of about 75% to about 95%. See page 7, lines 1-9. WO '741 teaches employing a high void volume in order to produce a material which has a high abrasive rate and which has a decreased tendency to clog up which reduces the abrasive rate and hinders cleaning of the web by flushing. WO '741 teaches a very high void volume and thus a very low density. The instant claims recite a maximum density of 50%. The instant claims thus encompass very low density values. Therefore,

it would have been obvious to one of ordinary skill in the art at the time at the time the invention was made to have selected the desired void volume and thus the desired density through the process of routine experimentation in order to arrive at a material having sufficient strength and a decreased tendency to clog up which reduces the abrasive rate and hinders cleaning of the web by flushing. Therefore, WO '741 does teach the claimed lofty and open structure.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Elizabeth M. Cole/
Primary Examiner, Art Unit 1798

Conferees:

/D. Lawrence Tarazano/
Supervisory Patent Examiner, Art Unit 1786

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Supervisory Patent Examiner, Art Unit 1798